



LUMINAIRE TESTING LABORATORY, INC.



905 Harrison Street · Allentown, PA 18103 · (610) 770-1044 · Fax (610) 770-8912 · www.LuminaireTesting.com

LTL NUMBER: 01619

DATE: 5-23-1994

PREPARED FOR: MERCURY LIGHTING PROD.

CATALOG NUMBER: 35E-432-OCT-9A-ELB-120V/
35E-432-OCT-9A-ELB-120V-20GA

LUMINAIRE: FORMED STEEL HOUSING, WHITE ENAMEL REFLECTOR,
CLEAR ACRYLIC PRISMATIC LENS.

BALLAST: ONE MAGNETEK TRIAD B432I120RH.

LAMPS: FOUR GE F32T8-SP41 RATED AT 2900 LUMENS EACH.

MOUNTING: RECESS

LUMEN TO CANDELA RATIO USED = 9.17

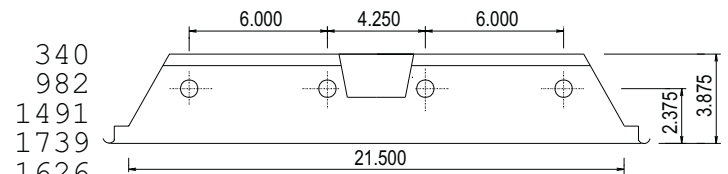
TOTAL INPUT WATTS = 109.0 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	3583	3583	3583	3583	3583
5	3561	3577	3579	3576	3572
15	3434	3458	3480	3497	3500
25	3153	3194	3247	3282	3290
35	2682	2721	2797	2848	2864
45	2014	2043	2108	2169	2207
55	1277	1299	1368	1422	1451
65	712	689	673	738	769
75	448	356	327	360	430
85	157	144	126	134	149
90	23	23	23	28	32

FLUX #01619



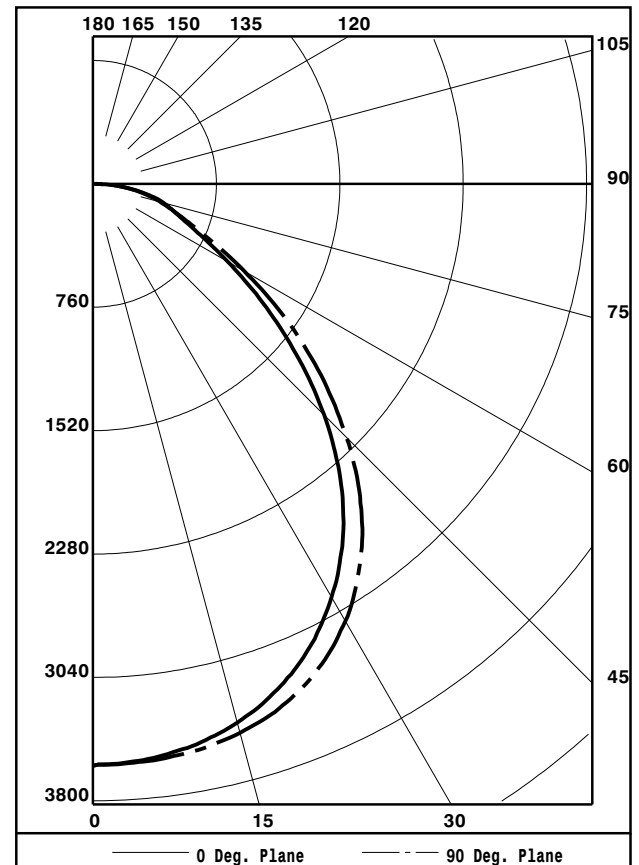
ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	2813	24.3	32.5
0- 40	4553	39.2	52.6
0- 60	7398	63.8	85.5
0- 90	8657	74.6	100.0
90-180	0	0.0	0.0
0-180	8657	74.6	100.0

TOTAL LUMINAIRE EFFICIENCY: 74.6%
 TOTAL REFLECTANCE OF PAINT: 89.1%
 CIE TYPE: DIRECT
 PLANE: 0-DEG 90-DEG
 SPACING CRITERIA: 1.2 1.3
 SHIELDING ANGLES: 90 90
 LUMINOUS LENGTH: 45.500 21.500

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	5677.	5677.	5677.
45	4513.	4723.	4945.
55	3527.	3779.	4008.
65	2669.	2523.	2883.
75	2742.	2002.	2632.
85	2854.	2290.	2709.



TESTED BY JOHN HAYES

CHECKED BY JAY LANGTHORN

THIS REPORT BASED ON LM-41 AND OTHER PERTINENT IES PROCEDURES.



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	89	89	89	89	87	87	87	87	83	83	83	79	79	79	76	76	76	75	75	75	75
1	82	79	77	74	80	78	75	73	75	72	71	72	70	68	69	68	66	65	65	65	65
2	76	71	66	63	74	69	65	62	67	63	61	64	62	59	62	60	58	56	56	56	56
3	70	63	58	54	69	62	57	53	60	56	53	58	55	52	56	53	51	49	49	49	49
4	65	57	51	47	63	56	51	46	54	50	46	53	48	45	51	48	45	43	43	43	43
5	60	51	45	40	58	50	44	40	49	44	40	47	43	39	46	42	39	37	37	37	37
6	55	46	40	35	54	45	39	35	44	39	35	43	38	35	42	38	34	33	33	33	33
7	51	42	35	31	50	41	35	31	40	35	31	39	34	31	38	34	30	29	29	29	29
8	47	37	31	27	46	37	31	27	36	31	27	35	30	27	34	30	27	25	25	25	25
9	43	34	28	24	42	33	27	24	32	27	23	32	27	23	31	26	23	22	22	22	22
10	40	31	25	21	39	30	25	21	29	24	21	29	24	21	28	24	21	19	19	19	19

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	3583	3583	3583	3583	3583
5	3561	3577	3579	3576	3572
10	3515	3532	3543	3549	3549
15	3434	3458	3480	3497	3500
20	3315	3345	3386	3410	3417
25	3153	3194	3247	3282	3290
30	2939	2983	3055	3099	3110
35	2682	2721	2797	2848	2864
40	2372	2401	2469	2528	2562
45	2014	2043	2108	2169	2207
50	1634	1672	1743	1802	1834
55	1277	1299	1368	1422	1451
60	958	966	1003	1054	1077
65	712	689	673	738	769
70	555	484	440	508	566
75	448	356	327	360	430
80	313	252	238	250	297
85	157	144	126	134	149
90	23	23	23	28	32

ZONAL LUMEN SUMMARY

0- 5	86.
5- 10	255.
10- 15	417.
15- 20	566.
20- 25	695.
25- 30	796.
30- 35	860.
35- 40	879.
40- 45	849.
45- 50	777.
50- 55	673.
55- 60	546.
60- 65	415.
65- 70	300.
70- 75	223.
75- 80	169.
80- 85	110.
85- 90	41.

THIS TEST WAS CONDUCTED USING RELATIVE PHOTOMETRY TECHNIQUES ACCORDING TO STANDARD IESNA PROCEDURES. THE USER MUST THEREFORE USE CAUTION IN THE FOLLOWING SITUATIONS: 1) THIS TEST WAS PERFORMED USING A SPECIFIC BALLAST/LAMP COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER BALLAST/LAMP COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. 2) ACCORDING TO IESNA PROCEDURES, THE BALLAST(S) AND LAMP(S) ARE PRESUMED TO PRODUCE 100% OF RATED OUTPUT. AN APPROPRIATE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATINGS AND LUMINOUS INTENSITY VALUES GIVEN. 3) THIS TEST WAS CONDUCTED IN A CONTROLLED LABORATORY ENVIRONMENT WHERE THE AMBIENT TEMPERATURE WAS HELD AT 25°C ±1°C. FIELD PERFORMANCE MAY DIFFER PARTICULARLY IN REGARDS TO CHANGE IN LUMINOUS OUTPUT AS A RESULT OF DIFFERENCE IN AMBIENT TEMPERATURE AND METHOD OF MOUNTING THE LUMINAIRE.



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VISUAL COMFORT PROBABILITY TABLE

RATED LUMENS PER LAMP 2900.

100. FC. REFLECTANCES 80/50/20

ROOM LUMINAIRES 0 DEG PLANE

LUMINAIRES 90 DEG PLANE

W	L	8.5	10.0	13.0	16.0	8.5	10.0	13.0	16.0
20	20	60	64	71	78	59	62	68	76
20	30	52	56	61	68	52	55	59	65
20	40	48	51	56	61	48	50	54	59
20	60	44	47	50	55	44	47	50	53
30	20	61	65	70	76	60	64	68	75
30	30	53	56	61	66	53	56	59	64
30	40	48	51	55	58	48	51	53	57
30	60	44	47	49	52	45	47	48	51
30	80	42	44	45	49	43	45	46	48
40	20	63	67	71	75	62	66	70	75
40	30	54	58	61	65	54	57	60	64
40	40	49	52	55	58	50	52	54	57
40	60	45	47	49	52	45	48	49	51
40	80	42	45	45	48	43	45	46	48
40	100	41	43	43	46	42	44	44	46
60	30	56	59	62	66	56	59	61	65
60	40	50	53	56	59	51	53	55	58
60	60	45	48	49	52	46	48	49	52
60	80	43	45	45	48	44	46	46	48
60	100	41	43	43	45	42	44	44	46
100	40	54	56	58	61	54	56	57	60
100	60	48	50	51	54	49	51	51	54
100	80	45	47	47	50	46	48	47	50
100	100	43	45	44	47	44	45	45	46